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## **EUROPEAN PATENT APPLICATION**

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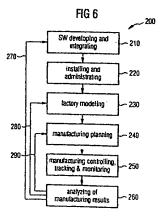
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## (54) Computer integrated manufacturing techniques

(57)The present invention provides a novel distributed factory system framework including a novel factory automation lifecycle (200) having lifecycle activities for SW developing and integrating (210), installing and administrating (220), factory modeling (230), manufacturing planning (240), manufacturing controlling, monitoring and tracking (250) and analyzing of manufacturing results (260). The factory lifecycle comprises framework components. The distributed factory system framework also includes application components and SW building blocks. The framework components are adapted for managing the application components, while the application components are utilized to provide instructions for managing a process such as a wafer fab. The building blocks are adapted for forming or modifying framework and application components. The distributed factory system framework provides computer implemented

methods for integrating processing systems and facilitates process and equipment changes.



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## **EUROPEAN SEARCH REPORT**

Application Number

EP 00 11 5577

ategory	Citation of document with of relevant pa	i Indication, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
x	<pre>2/ February 1996 ( * column 13, line * * column 39, line</pre>	41 - column 15, line 35	1,13,17, 19-24	
(	US 5 657 254 A (DU 12 August 1997 (19	* ROSS RONALD R FT AL)	15	
			_	TECHNICAL FIELDS SEARCHED (bit.Cl.7)
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	he present search report has be	een drawn up for all claims		
Place of search MUNICH		Date of completion of the search		Examiner
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## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 11 5577

This arriex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

27-09-2001

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5495417	A	27-02-1996	JP JP JP JP JP JP JP JP	5266029 A 6110894 A 5216896 A 3140877 B2 6252236 A 3139867 B2 6260380 A 6176994 A 5694325 A 5151231 A	15-10-1993 22-04-1994 27-08-1993 05-03-2001 09-09-1994 05-03-2001 16-09-1994 24-06-1994 02-12-1997 18-06-1993
US 5657254	A	12-08-1997	US US CA CA CA US US	5508947 A 5220517 A 2050247 A1 2165847 A1 2194855 A1 5329463 A 5497316 A	16-04-1996 15-06-1993 01-03-1992 01-03-1992 01-03-1992 12-07-1994 05-03-1996

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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